

ABSTRACT OF THE DISCLOSURE

Semiconductor integrated circuit devices that operate under different power supply voltages are directly interconnected by a bidirectional bus which is a transmission line. A driver is of a push-pull type and a reception side is CTT-terminated. If a terminating resistor is in conformity with the characteristic impedance of the transmission line, the on resistance of the driver is equal to or lower than the characteristic impedance. If the on resistance of the driver is in conformity with the characteristic impedance of the transmission line, the value of the terminating resistor is equal to or lower than the characteristic impedance of the transmission line. If the reception side is VTT-terminated, the value of the VTT is 1/2 of a lower one of power supply voltages that are supplied to the respective semiconductor integrated circuit devices. The value of the terminating resistor is in conformity with the characteristic impedance of the transmission line. The semiconductor integrated circuit devices use a common reference voltage for determining the signal voltage.